Summary of the
ELAB PBMS Subcommittee Teleconference
May 29, 1997

The Performance Based Measurement Systems (PBMS) subcommittee of the Environmental Laboratory Advisory Board (ELAB) convened by teleconference on May 29, 1997, at 1 pm. The meeting was led by its chair, Dr. Kathy Hillig of BASF Corporation. *The purpose of this meeting was to continue to discuss (a) matrix and matrix type, (b) what needs to happen to make PBMS acceptable to all stakeholders, and (c) need for an open forum during NELAC for people to discuss matrix issues or PBMS in general?* These items were continued from the May 19, 1997 teleconference of this subcommittee.

It was noted by Dr. Hillig that ELAB has asked the subcommittee to raise issues that it perceives may hinder the successful implementation of the PBMS. While ELAB would be very glad to receive recommendations on how to solve those issues, it is more important for this subcommittee to identify issues that would hinder the PBMS implementation.

Following introductory remarks the minutes of the preceding meeting, May 19, 1997, were approved with revisions and will be posted on the NELAC Bulletin Board. The list of action items is provided in Attachment A and the list of participants is given in Attachment B.

ASSESSOR TRAINING

The issue of assessor training for successful implementation of the PBMS program was raised. Under the current system of prescriptive methods an assessor is free to check against pre-defined method characteristics and performance. Under the PBMS paradigm, the assessor will have other issues to address which may not be immediately apparent. The question then becomes how a laboratory can successfully demonstrate to the assessor that the method of choice which is being assessed works as specified. For example, would equivalency to a reference method be sufficient, or would performance of the method on a specified reference material be sufficient?

MATRIX DEFINITION

It was noted that there is no current uniform agency-wide definition of sample matrix. One possibility is that performance on a matrix spike duplicate may be a sufficient basis to define the matrix. However, until such a definition is agreed upon, particularly by assessors, there is a potential for serious misunderstanding between laboratories, assessors, and regulators in the implementation of PBMS.

APPROVED METHODS

It was pointed out that PBMS is a regulatory construct that is a system and that it refers to an approach under which laboratories can operate. PBMS includes both EPA approved methods and other appropriate methods which a laboratory may choose to implement. Clarification of what constitutes an "EPA-approved" method, in a legally defensible manner, will be necessary.

METHOD VALIDATION

An acceptable definition of Method Validation is needed in the form of a checklist or other specification that is understandable to both the laboratory (as it designs method validation schemes) and to assessors as they review such data. Aspects of this definition should include

what constitutes a major or minor modification, and how they are identified. Additionally, acceptance criteria for the validation process needs to be specified to ensure that the laboratory designs the validation process adequately.

COST

While the expectations for PBMS currently are that there will be significant cost savings due to the possibility of using innovative inexpensive new test methods, there is also the potential for a significant increase in the number of quality assurance samples that may be required. For example, if a matrix spike duplicate is required for each sample, the testing cost would immediately be doubled and potentially negate any cost savings in other areas.

LABORATORY CLIENT RELATIONSHIPS

Additional concerns discussed included the necessary change in the role of a laboratory from merely analyzing samples provided according to contractual specifications to participating in the planning and design of the sampling activity. Issues such as applicability of specified methods to particular sample types, the required sample volume, and the definition of the adequacy of the data package must all be addressed. Similarly the issues of the responsibility for the various quality assurance samples that will become necessary should be addressed. It was noted that there should be a mechanism by which the laboratory can promptly and effectively communicate their concerns about data quality and data usability to the client in a timely manner that allows rapid correction.

NEXT MEETING

No further meetings of the subcommittee have been scheduled. However, Dr. Hillig requested that members e-mail to her any significant concerns they have and she will ensure that they are included in the report of this subcommittee to ELAB during the July meeting.

Attachment A

ACTION ITEMS
ELAB PBM Subcommittee Teleconference
May 29, 1997

Action	Date Completed
E-mail to Dr. Hillig any significant concerns and she will include them in the report of this subcommittee to ELAB during the July meeting	

Attachment B

LIST OF PARTICIPANTS
ELAB PBM Subcommittee Teleconference
May 29, 1997

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